

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-3. (Cancelled)

4. (Currently Amended) ~~The circuit of claim 3,~~ An amplifier circuit comprising:

a first transistor; and

a biasing circuit including a process compensation circuit, the biasing circuit being coupled to a gate of the first transistor;

wherein the process compensation circuit includes a replica device circuit having

a replica transistor that replicates the characteristics of the first transistor,

and

~~wherein the replica device circuit further includes~~ a constant current source coupled to the replica transistor.

5. (Original) The circuit of claim 4, wherein the replica transistor is connected as a diode.

6. (Currently Amended) The circuit of claim ~~[[1]]~~ 4, wherein the process compensation circuit and the first transistor are included in a single integrated circuit.

7. (Cancelled)

8. *(Currently Amended)* ~~The circuit of claim 7,~~ An amplifier circuit comprising:
 a first transistor; and
 a biasing circuit including a process compensation circuit, the biasing circuit
being coupled to a gate of the first transistor;
 wherein the biasing circuit further includes a bias control circuit coupled to the
gate of the first transistor; and
 wherein the bias control circuit includes a variable current source coupled to a
control circuit.
9. *(Original)* The circuit of claim 8, wherein the control circuit includes a digital to
analog converter.
10. *(Cancelled)*
11. *(Currently Amended)* ~~The circuit of claim 10,~~ An amplifier circuit comprising:
 a first transistor; and
 a biasing circuit including a process compensation circuit, the biasing circuit
being coupled to a gate of the first transistor;
 wherein the biasing circuit further includes a temperature compensation circuit
coupled to the gate of the first translator; and
 wherein the temperature compensation circuit includes a temperature proportional
current source.

12. *(Currently Amended)* The circuit of claim ~~[[10]]~~ 11, wherein the temperature compensation circuit and the first transistor are included in a single integrated circuit.
13. *(Currently Amended)* The circuit of claim ~~[[1]]~~ 4, wherein the amplifier circuit is included within a transmitter.
14. *(Currently Amended)* The circuit of claim ~~[[1]]~~ 4, wherein the amplifier circuit is included within a wireless data link transmitter.
15. *(Currently Amended)* A method of supplying a process compensated DC bias voltage comprising:
generating a current using a constant current source;
producing the process compensated DC bias voltage in a process compensation circuit based on the current; and
applying the process compensated DC bias voltage to a gate of a first transistor, the process compensation circuit and the first transistor being on a single integrated circuit.
16. *(Currently Amended)* ~~The method of claim 15,~~ A method of supplying a process compensated DC bias voltage comprising:
producing the process compensated DC bias voltage in a process compensation circuit; and

applying the process compensated DC bias voltage to a gate of a first transistor,
the process compensation circuit and the first transistor being on a single integrated
circuit;

wherein the process compensated DC bias voltage is substantially equal to a threshold voltage of the first transistor.

17. *(Original)* The method of claim 15, further comprising adjusting the process compensated DC bias voltage to select a desired class of operation for the first transistor.

18. *(Original)* The method of claim 17, wherein adjusting the process compensated DC bias voltage includes receiving a control signal.

19. *(Original)* The method of claim 18, wherein the control signal includes a digital control signal.

20. *(Currently Amended)* The method of claim 19, wherein receiving the control signal ~~can include~~ includes converting the digital control signal to an analog signal.

21. *(Original)* The method of claim 15, further comprising adjusting the process compensated DC bias voltage to compensate for a temperature of the integrated circuit.

22. *(Currently Amended)* A data link system comprising:
a first transmitter including an amplifier that includes:

a first transistor; and
a biasing circuit including a process compensation circuit, the biasing circuit being coupled to a gate of the first transistor, wherein the process compensation circuit and the first transistor are included in a single integrated circuit;

wherein the process compensation circuit includes a replica device circuit having
a replica transistor that replicates the characteristics of the first transistor,
and
a constant current source coupled to the replica transistor.

23. *(Currently Amended)* A power amplifier circuit comprising:

a first transistor; and
a biasing circuit ~~including a process compensation circuit, the biasing circuit~~
~~being~~ coupled to a gate of the first transistor, the biasing circuit including:

a process compensation circuit;
a bias control circuit coupled to the gate of the first transistor; and
a temperature compensation circuit coupled to the gate of the first transistor, wherein the process compensation circuit, the temperature compensation circuit and the first transistor are included in a single integrated circuit; and
wherein the temperature compensation circuit includes a temperature proportional
current source.